

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: HALO

Report Number: P640217

Luminaire Tested: LCR830RD9FSE010-33W-3500K

Issue Date: 2/13/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640217  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2208047C001)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: LCR830RD9FSE010-33W-3500K  
Description: LCR 8  
Light Source: 3500K CCT, 93 CRI LEDS  
Ballast/Driver: -

**Summary**

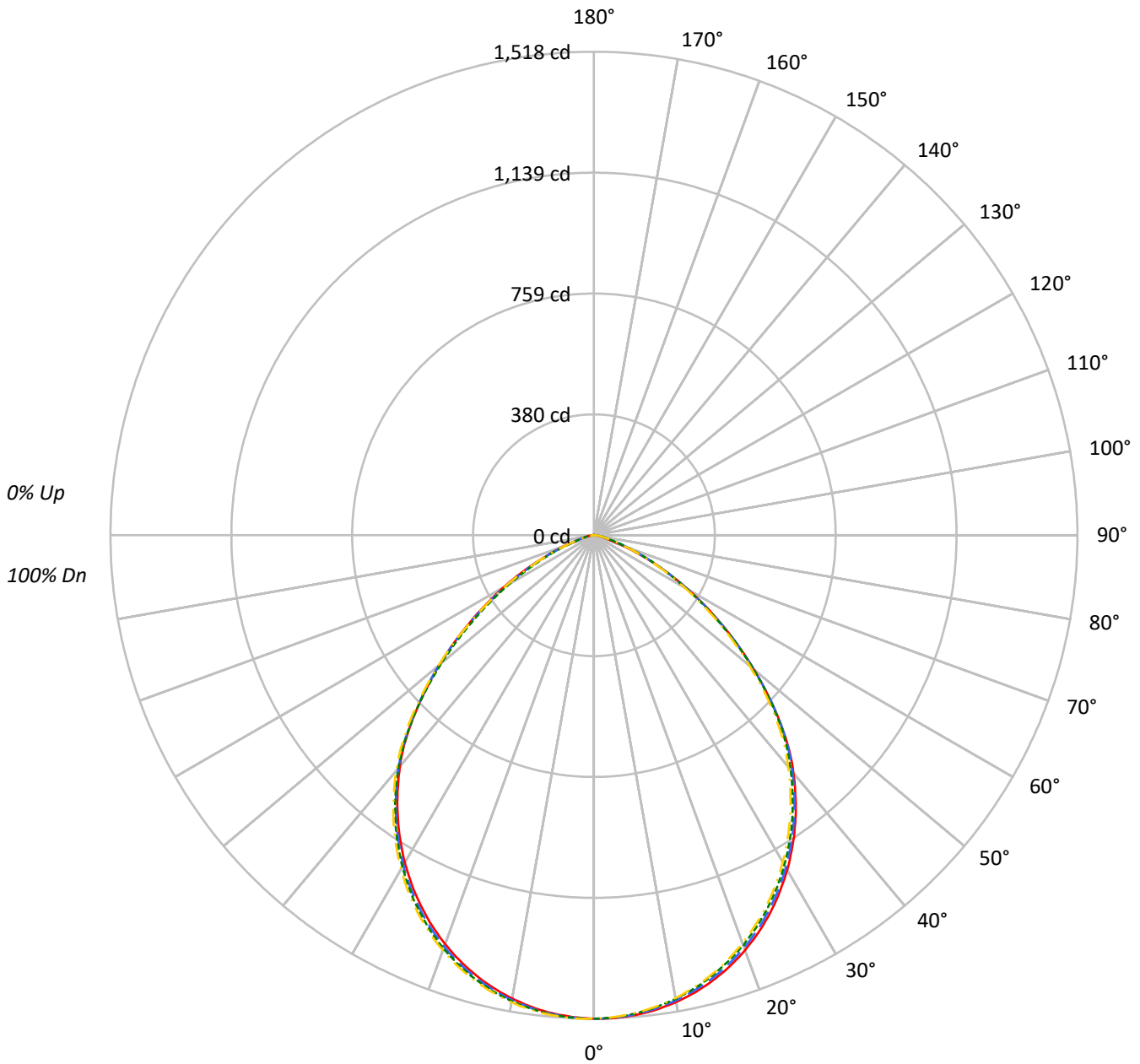
Lumens per Lamp: N/A  
Luminaire Lumens: 3140.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.26  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P640217  
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### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
RC	80				70				50				30				10		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77		
3	95	86	79	73	93	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59		
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52		
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46		
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	47	43	41		
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37		
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	46813	46813	46813	46813
5°	46800	46642	46629	46772
10°	46599	46276	46251	46514
15°	46169	45722	45661	46038
20°	45512	44993	44819	45321
25°	44531	43908	43704	44259
30°	43209	42568	42265	42814
35°	41480	40851	40434	40904
40°	39236	38672	38145	38434
45°	35921	35698	34743	34770
50°	31470	31326	30367	29945
55°	26494	26182	25461	24537
60°	21160	20741	20185	18915
65°	15220	15315	14374	13207
70°	9061	10170	8664	7889
75°	4837	6112	4790	4599
80°	4031	4990	3942	3836
85°	2937	4706	2830	2689

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 35995 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.2	4.6
10°-20°	405.1	12.9
20°-30°	596.1	19.0
30°-40°	678.2	21.6
40°-50°	621.2	19.8
50°-60°	427.5	13.6
60°-70°	201.8	6.4
70°-80°	53.2	1.7
80°-90°	11.3	0.4
90°-100°	0.1	0.0
100°-110°	0.2	0.0
110°-120°	0.3	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	1144.4	36.4
0°-40°	1822.6	58.0
0°-60°	2871.3	91.4
0°-90°	3137.5	99.9
90°-120°	0.6	0.0
90°-150°	1.8	0.1
90°-180°	2.0	0.1
0°-180°	3140.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1518	1518	1518	1518	1518	
5°	1512	1507	1506	1511	1512	144
15°	1446	1432	1430	1442	1446	408
25°	1309	1290	1284	1301	1309	602
35°	1102	1085	1074	1087	1102	687
45°	824	819	797	797	824	632
55°	493	487	474	456	493	441
65°	209	210	197	181	209	210
75°	41	51	40	39	41	51
85°	8	13	8	8	8	10
90°	0	1	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	1	0	1	1	1	0
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1
0.5°	1518.5	1518.1	1518.1	1517.8	1517.8	1517.8	1517.6	1517.6	1517.7	1517.7	1517.9
1°	1518.2	1518.0	1517.6	1517.3	1517.3	1517.3	1517.0	1517.0	1517.2	1517.3	1517.5
1.5°	1518.0	1517.9	1517.1	1516.7	1516.3	1516.2	1516.3	1516.2	1516.3	1516.7	1517.0
2°	1517.8	1517.4	1516.5	1516.0	1515.6	1515.4	1515.3	1515.1	1515.2	1515.6	1516.4
2.5°	1516.9	1516.6	1515.7	1515.1	1514.5	1514.3	1513.9	1513.9	1514.3	1514.5	1515.6
3°	1516.0	1515.8	1514.9	1513.9	1513.2	1512.9	1512.6	1512.5	1512.8	1513.7	1514.7
3.5°	1515.3	1515.1	1513.8	1512.6	1512.1	1511.5	1511.1	1510.9	1511.3	1512.7	1513.5
4°	1514.3	1513.7	1512.4	1511.1	1510.5	1509.9	1509.5	1509.6	1509.9	1511.0	1512.2
4.5°	1513.1	1512.4	1510.8	1509.4	1508.7	1507.8	1507.6	1507.9	1508.3	1509.8	1510.5
5°	1511.9	1510.7	1509.1	1507.6	1506.8	1506.0	1505.6	1505.8	1506.4	1507.6	1508.9
5.5°	1510.2	1508.9	1507.4	1505.2	1504.5	1503.8	1503.1	1503.4	1504.7	1505.4	1507.0
6°	1508.6	1507.2	1505.6	1503.3	1502.2	1501.6	1500.9	1501.0	1502.0	1503.3	1504.9
6.5°	1506.8	1505.0	1503.2	1501.1	1499.8	1499.0	1498.3	1498.3	1499.5	1501.0	1502.7
7°	1504.9	1503.0	1500.8	1498.7	1497.1	1496.3	1495.5	1495.8	1496.8	1498.4	1500.3
7.5°	1501.9	1500.6	1497.8	1496.1	1494.3	1493.5	1492.6	1492.6	1494.0	1495.5	1497.6
8°	1499.7	1498.0	1495.3	1493.3	1491.5	1490.3	1489.4	1489.4	1490.9	1492.6	1494.7
8.5°	1496.9	1495.3	1492.3	1490.3	1488.2	1487.1	1486.3	1486.4	1487.7	1489.5	1491.6
9°	1494.3	1492.3	1489.3	1486.9	1485.0	1483.6	1482.9	1483.2	1484.2	1486.2	1488.5
9.5°	1491.5	1489.3	1486.0	1483.5	1481.5	1480.0	1479.2	1479.5	1480.8	1482.7	1485.6
10°	1488.2	1486.1	1482.8	1480.0	1477.9	1476.2	1475.4	1475.6	1477.1	1479.1	1482.3
10.5°	1484.8	1482.7	1479.2	1476.2	1474.0	1472.0	1471.3	1471.8	1473.1	1475.4	1478.5
11°	1481.2	1479.1	1475.6	1472.5	1470.1	1467.8	1467.2	1467.9	1469.1	1471.5	1474.6
11.5°	1477.7	1475.2	1471.7	1468.5	1466.0	1463.6	1462.7	1463.7	1465.0	1467.4	1470.5
12°	1473.7	1471.2	1467.4	1463.7	1461.7	1459.0	1458.1	1459.3	1460.7	1463.0	1466.4
12.5°	1469.9	1467.1	1463.2	1459.4	1457.2	1454.6	1453.6	1454.6	1456.1	1458.6	1461.9
13°	1465.2	1462.8	1458.8	1454.8	1452.5	1449.7	1448.8	1449.7	1451.3	1454.0	1457.2
13.5°	1460.6	1458.4	1454.1	1450.2	1447.8	1444.8	1443.7	1444.6	1446.2	1448.9	1452.6
14°	1456.1	1453.7	1449.3	1445.2	1442.7	1439.9	1438.6	1439.4	1441.2	1443.7	1447.6
14.5°	1451.4	1448.9	1444.5	1440.0	1437.4	1434.8	1433.4	1434.0	1435.9	1438.5	1442.5
15°	1446.2	1443.7	1439.2	1434.6	1432.2	1429.2	1427.7	1428.6	1430.3	1433.2	1437.2
15.5°	1441.0	1438.4	1433.8	1429.0	1426.7	1423.8	1422.1	1422.7	1424.6	1427.6	1431.8
16°	1435.8	1433.0	1428.3	1423.6	1420.8	1418.1	1416.0	1417.0	1419.0	1421.9	1426.2
16.5°	1430.5	1427.5	1422.9	1417.7	1414.8	1411.9	1410.1	1411.1	1412.8	1416.1	1420.5
17°	1424.7	1421.7	1416.8	1411.6	1408.7	1405.9	1403.9	1404.6	1406.8	1410.0	1414.3
17.5°	1418.9	1415.5	1411.0	1405.7	1402.9	1399.5	1397.5	1398.2	1400.3	1403.5	1408.0
18°	1412.9	1409.3	1404.5	1399.3	1396.7	1393.0	1391.1	1391.8	1393.7	1397.1	1401.5
18.5°	1406.5	1402.7	1398.2	1392.7	1390.1	1386.2	1384.3	1384.9	1387.0	1390.4	1395.1
19°	1400.2	1396.3	1391.7	1385.9	1383.1	1379.4	1377.4	1377.8	1380.1	1383.7	1388.3
19.5°	1393.7	1389.8	1385.2	1379.4	1376.4	1372.6	1370.4	1370.7	1373.0	1376.9	1381.6
20°	1386.9	1383.3	1378.2	1372.4	1371.1	1365.5	1363.4	1363.7	1365.8	1369.8	1374.5
20.5°	1379.4	1376.3	1371.1	1365.5	1362.3	1358.4	1355.7	1356.4	1358.6	1362.3	1367.3
21°	1372.3	1369.0	1363.8	1358.2	1354.9	1351.1	1348.2	1348.9	1351.0	1354.9	1359.7
21.5°	1365.2	1361.8	1356.5	1350.7	1347.3	1343.2	1340.2	1341.2	1343.1	1347.3	1352.0
22°	1357.4	1354.3	1348.9	1343.3	1339.9	1335.4	1332.8	1333.4	1335.2	1339.6	1344.3

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1349.6	1346.6	1341.4	1335.4	1332.2	1327.7	1325.0	1325.4	1327.2	1331.4	1336.3
23°	1342.1	1338.7	1333.4	1327.4	1324.2	1319.5	1317.0	1317.1	1319.2	1323.3	1328.2
23.5°	1333.9	1330.7	1325.2	1319.0	1316.0	1311.1	1308.6	1308.5	1310.6	1314.9	1319.9
24°	1325.5	1322.4	1316.8	1310.8	1307.5	1302.6	1300.0	1299.9	1301.9	1306.5	1311.4
24.5°	1317.4	1314.2	1308.5	1302.1	1299.3	1294.2	1291.5	1291.1	1293.2	1297.6	1302.8
25°	1308.8	1305.6	1299.9	1293.4	1290.5	1285.4	1282.2	1282.3	1284.5	1288.6	1293.7
25.5°	1299.8	1297.0	1290.9	1284.8	1281.6	1276.3	1273.5	1273.4	1275.3	1279.9	1285.2
26°	1291.0	1288.1	1282.0	1276.0	1272.7	1267.0	1264.3	1264.1	1266.2	1270.7	1276.3
26.5°	1281.9	1278.9	1273.1	1267.0	1263.7	1258.5	1254.9	1254.7	1256.6	1261.1	1266.6
27°	1272.3	1269.7	1263.7	1257.9	1254.1	1248.5	1245.1	1245.1	1247.3	1251.5	1257.1
27.5°	1263.0	1260.1	1254.3	1248.3	1245.2	1239.4	1236.1	1235.5	1237.5	1241.7	1247.6
28°	1253.3	1250.5	1244.2	1238.8	1235.4	1229.7	1225.8	1225.6	1227.7	1232.1	1237.5
28.5°	1243.6	1240.7	1234.9	1228.8	1226.1	1219.8	1216.0	1215.7	1217.6	1221.8	1227.5
29°	1233.9	1231.1	1225.3	1219.1	1215.9	1210.0	1205.9	1205.2	1207.6	1211.8	1217.4
29.5°	1223.6	1220.9	1215.0	1209.1	1205.9	1199.9	1195.7	1195.3	1197.4	1201.6	1207.2
30°	1213.5	1210.7	1204.9	1198.8	1195.5	1189.9	1185.2	1185.0	1187.0	1191.2	1196.5
30.5°	1203.0	1200.2	1194.2	1188.5	1185.1	1179.2	1174.9	1174.3	1176.2	1180.3	1185.7
31°	1192.2	1189.8	1183.8	1177.9	1174.6	1168.6	1164.0	1163.7	1165.4	1169.7	1175.1
31.5°	1181.4	1178.8	1173.3	1167.2	1164.1	1157.6	1152.9	1152.7	1154.4	1158.7	1164.1
32°	1170.8	1168.2	1162.5	1156.5	1153.2	1146.8	1141.7	1141.7	1143.5	1147.8	1153.1
32.5°	1159.4	1157.1	1151.2	1145.5	1142.4	1136.2	1131.4	1130.7	1132.3	1136.5	1141.8
33°	1148.4	1146.0	1140.4	1134.4	1131.4	1124.6	1120.1	1119.4	1121.1	1125.1	1129.9
33.5°	1137.4	1134.6	1128.9	1123.0	1120.0	1113.4	1108.6	1108.0	1109.4	1113.3	1118.3
34°	1125.8	1123.2	1117.9	1111.9	1108.6	1101.8	1097.3	1096.2	1097.8	1101.8	1106.6
34.5°	1113.7	1111.1	1105.8	1100.3	1097.0	1090.5	1085.6	1084.5	1086.0	1089.6	1094.8
35°	1101.9	1099.8	1094.4	1088.5	1085.2	1078.7	1073.7	1072.7	1074.1	1077.9	1083.1
35.5°	1089.6	1087.6	1082.6	1076.8	1073.5	1067.0	1062.2	1060.6	1062.3	1065.6	1070.7
36°	1077.7	1075.9	1070.6	1064.8	1061.4	1054.6	1049.7	1048.3	1050.1	1053.5	1058.4
36.5°	1065.3	1063.4	1058.2	1052.6	1049.3	1042.8	1037.5	1036.2	1037.7	1041.1	1046.0
37°	1052.8	1051.1	1046.3	1040.1	1036.8	1030.1	1025.1	1023.7	1025.1	1028.3	1033.4
37.5°	1040.1	1038.4	1033.9	1027.7	1024.5	1017.9	1012.8	1011.5	1012.4	1015.6	1020.4
38°	1027.4	1025.7	1020.9	1015.1	1011.7	1005.2	999.9	999.0	999.6	1003.0	1007.5
38.5°	1014.5	1012.6	1008.0	1002.4	998.9	992.6	987.2	986.2	987.0	989.8	994.5
39°	1001.5	999.8	995.7	989.9	986.6	979.6	974.4	973.1	974.0	976.9	981.6
39.5°	988.2	986.6	982.7	976.6	973.7	967.1	961.5	960.2	960.8	963.6	968.1
40°	974.7	973.7	969.5	963.5	960.7	953.8	948.2	947.1	947.6	950.7	954.9
40.5°	961.5	960.4	956.0	950.4	947.6	940.7	935.5	934.0	934.6	937.1	941.0
41°	948.1	947.2	942.9	937.0	934.3	927.3	922.3	920.7	921.1	923.2	927.0
41.5°	933.9	933.6	929.5	923.6	921.2	914.5	909.0	907.5	906.9	908.4	912.0
42°	919.4	919.7	916.1	910.2	908.0	901.0	895.7	893.2	891.9	893.4	897.4
42.5°	904.4	904.8	902.4	896.4	894.5	887.4	881.3	878.5	876.9	877.9	881.6
43°	888.7	889.9	887.1	882.0	880.0	873.2	866.7	863.1	861.2	862.3	866.0
43.5°	872.5	874.3	871.7	866.8	865.4	858.1	851.4	847.7	845.4	846.4	849.9
44°	856.6	858.0	856.1	850.9	849.8	842.7	835.8	831.4	829.3	830.7	833.9
44.5°	840.1	841.5	840.2	835.1	834.5	827.1	820.1	815.6	813.2	814.2	817.4



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	823.7	825.4	824.0	819.0	818.6	811.3	804.0	799.7	796.7	797.8	801.1
45.5°	807.3	808.9	807.4	803.2	802.4	795.1	788.3	783.3	780.6	781.4	784.7
46°	790.7	792.1	790.9	786.4	786.8	778.9	771.8	766.7	764.2	764.9	768.1
46.5°	773.5	775.4	774.1	770.1	769.6	762.4	755.2	750.5	747.8	748.5	751.2
47°	756.8	758.7	757.4	752.8	753.2	745.8	738.6	734.3	730.9	731.7	734.4
47.5°	739.8	741.9	740.2	735.8	736.5	729.3	722.4	718.0	714.8	715.4	717.7
48°	723.3	725.1	723.3	718.9	720.1	712.6	705.4	701.8	698.8	699.0	701.1
48.5°	706.7	708.1	706.3	702.3	703.4	696.0	688.5	685.5	682.7	682.6	684.4
49°	689.7	691.3	689.2	685.0	686.6	679.3	671.5	669.2	666.6	666.2	667.8
49.5°	673.1	674.5	673.1	668.4	669.8	662.6	654.6	652.9	650.5	649.8	651.1
50°	656.0	657.7	655.5	651.2	653.0	646.0	639.2	635.8	633.0	632.6	633.9
50.5°	639.1	640.9	638.6	634.1	635.9	629.3	622.7	619.0	616.7	615.9	617.1
51°	622.7	623.9	621.9	617.2	619.2	612.1	606.1	602.5	600.4	599.5	599.9
51.5°	606.0	607.4	605.2	600.7	602.4	595.5	589.8	586.3	584.6	583.4	583.3
52°	589.5	591.1	588.8	583.8	586.0	579.0	573.1	570.3	568.0	567.1	566.9
52.5°	573.0	574.8	571.9	567.2	569.0	562.4	556.6	553.9	551.8	550.7	550.3
53°	556.9	558.1	555.4	550.7	552.4	545.9	540.5	537.7	536.1	534.5	533.5
53.5°	540.6	541.8	539.1	534.2	535.5	529.2	524.5	521.9	520.2	518.4	517.2
54°	524.2	525.6	522.5	517.8	519.1	513.2	508.4	506.1	504.3	502.6	501.2
54.5°	508.6	509.9	506.9	501.7	502.9	497.3	492.4	490.7	488.6	486.9	485.0
55°	492.8	493.9	490.8	485.5	487.0	481.6	476.9	475.3	473.6	471.1	469.2
55.5°	476.4	478.7	475.0	469.5	470.8	465.8	461.2	459.9	457.9	455.8	453.1
56°	461.8	463.0	459.6	454.1	455.1	450.2	446.2	444.5	442.7	440.3	437.5
56.5°	446.2	447.7	444.2	438.7	439.4	434.7	430.7	429.4	427.5	425.2	422.2
57°	430.8	432.2	428.7	423.0	424.0	419.4	415.8	414.6	413.0	409.8	406.9
57.5°	415.3	417.6	413.6	407.8	408.6	404.3	400.8	400.1	398.1	395.0	391.8
58°	401.3	402.5	398.7	393.0	393.9	389.7	386.4	385.9	383.7	380.5	376.7
58.5°	386.5	388.0	384.2	378.3	379.2	374.8	371.8	371.2	369.5	366.2	362.4
59°	371.8	373.2	369.6	363.3	364.6	360.7	357.7	357.0	355.6	351.8	347.6
59.5°	357.0	359.1	355.3	349.3	350.4	346.3	343.4	343.0	341.1	337.7	333.2
60°	343.1	344.9	341.2	335.5	336.3	332.3	329.7	329.3	327.3	323.6	318.9
60.5°	328.3	331.4	325.7	322.0	322.4	318.8	315.9	315.8	313.9	310.0	305.2
61°	314.8	317.9	312.6	308.5	308.8	305.2	302.6	302.3	300.8	296.6	291.2
61.5°	301.3	304.5	299.5	295.0	295.6	291.9	289.6	289.4	287.3	283.4	277.8
62°	287.9	291.0	286.3	281.5	282.6	279.2	276.8	276.6	274.7	270.2	264.7
62.5°	274.4	277.5	273.2	268.1	269.8	266.4	264.0	264.0	261.4	257.4	251.6
63°	261.1	264.0	260.6	255.0	257.0	253.8	251.7	251.3	248.0	244.5	238.5
63.5°	248.1	251.3	248.1	243.3	244.9	241.5	239.4	238.9	235.0	232.2	226.4
64°	234.6	239.0	235.9	231.3	232.9	229.6	227.7	227.3	222.4	220.0	214.1
64.5°	221.6	227.0	224.1	219.4	221.3	218.1	215.8	215.4	209.4	207.7	202.2
65°	208.6	214.8	212.5	208.0	209.9	206.9	204.8	204.0	197.0	195.7	190.7
65.5°	196.0	202.9	201.0	197.0	198.8	195.7	193.5	192.8	184.9	184.1	179.5
66°	183.2	191.2	189.8	185.9	187.8	184.8	182.8	181.3	173.4	172.6	168.2
66.5°	171.3	179.8	179.0	175.3	177.3	174.6	172.3	170.3	162.4	161.5	157.5
67°	159.8	168.4	168.5	165.1	167.2	164.5	162.3	159.6	151.9	150.7	147.4





TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	149.2	157.7	158.4	155.3	157.3	154.7	152.3	149.3	141.5	140.5	137.6
68°	138.8	147.2	148.4	145.8	147.5	145.0	142.7	139.1	131.7	130.6	127.7
68.5°	129.0	136.9	138.8	136.4	138.6	136.2	133.6	129.4	122.3	121.2	118.6
69°	119.4	127.2	129.6	127.7	129.6	127.2	124.8	120.3	113.2	112.2	109.7
69.5°	109.7	117.8	120.7	118.9	121.0	118.7	116.1	111.5	104.3	103.4	101.3
70°	100.5	109.0	112.3	110.8	112.8	110.7	107.9	103.2	96.1	95.3	93.3
70.5°	91.7	100.6	104.0	102.9	105.1	103.1	100.3	95.4	89.1	88.4	86.3
71°	83.4	92.3	96.1	95.4	97.6	95.5	92.9	88.8	82.0	81.6	79.4
71.5°	75.8	84.8	88.8	88.3	90.5	89.2	86.6	82.2	74.9	74.7	72.4
72°	68.5	77.7	81.8	81.6	84.2	82.9	80.3	75.7	67.9	67.9	65.5
72.5°	62.0	70.9	75.0	75.3	78.0	76.6	74.0	69.1	60.9	61.1	60.0
73°	56.1	64.7	69.0	69.3	71.7	70.3	67.7	62.6	55.1	55.8	54.8
73.5°	50.8	59.1	63.3	63.7	65.6	64.0	61.5	57.2	50.5	51.1	50.2
74°	47.0	54.2	58.1	58.7	60.4	59.0	56.6	52.6	46.9	46.9	46.1
74.5°	43.5	49.8	53.2	53.9	55.6	54.3	51.9	48.2	43.2	43.2	42.6
75°	40.6	45.9	48.9	49.7	51.3	50.0	47.7	44.4	40.2	40.0	39.8
75.5°	38.6	42.3	45.1	45.9	47.3	46.2	44.1	41.0	38.1	37.7	37.8
76°	36.6	39.1	41.7	42.5	43.8	42.8	40.8	38.3	36.1	35.7	35.9
76.5°	34.7	36.8	39.0	39.7	40.8	40.0	38.5	36.2	34.2	33.7	34.0
77°	32.9	34.8	37.1	37.7	38.5	37.9	36.6	34.3	32.3	31.9	32.2
77.5°	31.2	32.8	35.2	35.9	36.7	36.1	34.8	32.5	30.5	30.1	30.5
78°	29.4	31.1	33.4	34.1	34.8	34.3	33.0	30.7	28.8	28.3	28.8
78.5°	27.7	29.4	31.8	32.5	33.1	32.5	31.3	28.9	27.1	26.6	27.1
79°	26.0	27.7	30.1	30.8	31.4	30.8	29.6	27.2	25.4	24.9	25.4
79.5°	24.3	26.0	28.4	29.2	29.7	29.2	27.9	25.5	23.8	23.3	23.8
80°	22.7	24.4	26.7	27.5	28.1	27.6	26.3	23.9	22.2	21.7	22.3
80.5°	21.2	22.8	25.1	25.9	26.5	26.0	24.7	22.3	20.6	20.1	20.7
81°	19.7	21.2	23.5	24.3	25.0	24.4	23.1	20.7	19.0	18.6	19.2
81.5°	18.1	19.6	21.9	22.8	23.4	22.9	21.5	19.2	17.5	17.0	17.7
82°	16.6	18.1	20.4	21.3	21.9	21.4	20.0	17.6	16.0	15.5	16.2
82.5°	15.2	16.6	18.9	19.8	20.4	19.9	18.5	16.1	14.6	14.0	14.8
83°	13.8	15.1	17.4	18.4	18.9	18.4	17.0	14.6	13.2	12.6	13.4
83.5°	12.4	13.7	16.0	16.9	17.5	17.0	15.6	13.2	11.7	11.2	12.1
84°	11.0	12.3	14.6	15.5	16.1	15.6	14.2	11.8	10.4	9.9	10.8
84.5°	9.6	10.9	13.2	14.1	14.7	14.2	12.8	10.5	9.2	8.7	9.5
85°	8.3	9.5	11.9	12.8	13.3	12.8	11.5	9.3	8.0	7.6	8.3
85.5°	7.0	8.3	10.6	11.4	12.0	11.5	10.2	8.1	6.8	6.5	7.1
86°	6.1	7.2	9.4	10.1	10.6	10.2	9.0	6.9	5.6	5.3	5.8
86.5°	5.0	6.1	8.1	8.8	9.4	8.9	7.8	5.7	4.4	4.2	4.6
87°	4.1	5.1	6.9	7.5	8.1	7.6	6.6	4.6	3.5	3.3	3.4
87.5°	3.3	4.2	5.7	6.3	6.8	6.4	5.3	3.6	2.7	2.3	2.3
88°	2.5	3.2	4.6	5.0	5.5	5.1	4.1	2.7	1.9	1.4	1.2
88.5°	1.8	2.5	3.4	3.8	4.3	3.9	3.0	1.9	1.0	0.6	0.3
89°	1.0	1.7	2.6	2.9	3.1	2.7	1.9	1.0	0.3	0.2	0.1
89.5°	0.3	1.0	1.8	2.0	1.9	1.5	0.9	0.3	0.2	0.2	0.1



TEST NUMBER: P640217  
 CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.1	0.2	1.0	1.0	0.8	0.5	0.2	0.2	0.2	0.2	0.1
90.5°	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1
91°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
91.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
92°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
92.5°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
93°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
93.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
94°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
94.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
95.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
96°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
96.5°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
97.5°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
98°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
98.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
99°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
99.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
100°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
100.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
101°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
101.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
102°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
102.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
103°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
103.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
104°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
104.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
105°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1
105.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1
106°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
106.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
107°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
107.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
108°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
108.5°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
109°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
109.5°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
110°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
110.5°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
111°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
111.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
112°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
113°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
113.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
114°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2
114.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2
115°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2
115.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2
116°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2
116.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3
117°	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3
117.5°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
118°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
118.5°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
119°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
119.5°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120°	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
121°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3
121.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3
122°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3
122.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3
123°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3
123.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3
124°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4
124.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4
125°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
125.5°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126.5°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127.5°	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
128°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4
128.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4
129°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4
129.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4
130°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4
130.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4
131°	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5
131.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
132°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
132.5°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
133°	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
133.5°	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
134°	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5
134.5°	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5
135.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5
136°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5
136.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5
137°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5
137.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6
138°	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6
138.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
139°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
139.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
140.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
141°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
141.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
142°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
142.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
143°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
143.5°	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
144°	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
144.5°	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
145°	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
145.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
146°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
146.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
147°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
147.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
148°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
148.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
149°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
149.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7
150°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
150.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
151°	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
151.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
152°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
152.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
153°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
153.5°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
154°	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
154.5°	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
155°	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
155.5°	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
156°	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
156.5°	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.8
157°	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.8



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9
158°	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9
158.5°	0.8	0.8	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9
159°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
159.5°	0.8	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
160°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
160.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
161°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
161.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
162°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
163°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
163.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
164°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
164.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
165.5°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
166°	0.8	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
166.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
167°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
167.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
168°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
168.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
169°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
169.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
171°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
171.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
172°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
172.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
173°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
173.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
174°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
174.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175.5°	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
176°	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	0.9	0.9
176.5°	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9
177°	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9
177.5°	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9
178°	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9
178.5°	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9
179°	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9
179.5°	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9



TEST NUMBER: P640217  
CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1518.1	1518.1	1518.1	1518.1	1518.1	1518.1
0.5°	1518.5	1518.1	1517.9	1518.3	1518.4	1518.5
1°	1518.2	1517.9	1518.1	1518.4	1518.6	1518.2
1.5°	1517.7	1517.1	1517.9	1518.4	1518.4	1518.0
2°	1517.2	1516.7	1517.6	1518.3	1518.2	1517.8
2.5°	1516.6	1516.5	1517.0	1517.8	1517.6	1516.9
3°	1515.9	1515.7	1516.2	1517.2	1517.0	1516.0
3.5°	1515.1	1514.7	1515.5	1516.1	1516.2	1515.3
4°	1513.5	1513.6	1514.9	1515.2	1515.3	1514.3
4.5°	1512.3	1512.4	1513.2	1514.0	1514.2	1513.1
5°	1510.5	1511.0	1511.8	1512.7	1512.8	1511.9
5.5°	1508.7	1509.2	1510.2	1511.1	1511.3	1510.2
6°	1506.7	1507.3	1508.5	1509.5	1509.5	1508.6
6.5°	1504.7	1504.9	1506.5	1507.6	1507.6	1506.8
7°	1502.3	1502.3	1504.3	1505.5	1505.4	1504.9
7.5°	1499.7	1500.3	1502.2	1503.3	1503.1	1501.9
8°	1496.9	1497.5	1499.6	1500.8	1500.8	1499.7
8.5°	1494.5	1495.1	1497.0	1498.2	1497.9	1496.9
9°	1491.4	1492.0	1494.0	1495.6	1495.1	1494.3
9.5°	1488.3	1488.8	1491.0	1492.5	1492.3	1491.5
10°	1484.8	1485.5	1487.7	1489.2	1489.1	1488.2
10.5°	1481.4	1482.2	1484.2	1485.5	1485.9	1484.8
11°	1477.9	1478.4	1480.8	1482.1	1482.5	1481.2
11.5°	1473.7	1474.7	1476.6	1478.3	1478.5	1477.7
12°	1469.6	1470.7	1472.6	1474.6	1474.8	1473.7
12.5°	1465.3	1466.3	1468.6	1470.4	1470.4	1469.9
13°	1460.7	1461.6	1464.4	1466.4	1466.3	1465.2
13.5°	1456.5	1457.1	1459.8	1461.9	1461.9	1460.6
14°	1451.7	1452.3	1455.2	1457.2	1457.1	1456.1
14.5°	1446.9	1447.4	1450.3	1452.4	1452.4	1451.4
15°	1441.4	1442.1	1445.0	1447.6	1447.6	1446.2
15.5°	1436.3	1437.2	1439.8	1442.1	1442.3	1441.0
16°	1430.8	1431.6	1434.7	1436.9	1437.1	1435.8
16.5°	1424.9	1426.0	1429.0	1431.1	1431.6	1430.5
17°	1419.1	1419.8	1423.1	1425.4	1425.9	1424.7
17.5°	1413.3	1413.8	1417.0	1419.4	1420.0	1418.9
18°	1406.8	1407.8	1410.9	1413.5	1413.9	1412.9
18.5°	1400.4	1401.1	1404.4	1407.1	1407.7	1406.5
19°	1393.7	1394.7	1397.8	1400.5	1401.0	1400.2
19.5°	1387.0	1387.9	1390.9	1393.8	1394.3	1393.7
20°	1380.2	1381.1	1384.1	1387.1	1387.8	1386.9
20.5°	1372.9	1373.8	1377.0	1380.1	1380.5	1379.4
21°	1365.5	1366.1	1369.7	1373.0	1373.4	1372.3
21.5°	1357.9	1358.8	1362.1	1365.3	1366.5	1365.2
22°	1350.0	1351.2	1354.3	1357.8	1358.3	1357.4

TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1342.1	1343.1	1346.5	1350.2	1350.4	1349.6
23°	1334.3	1335.0	1338.5	1341.9	1342.9	1342.1
23.5°	1326.1	1326.5	1330.3	1334.0	1335.0	1333.9
24°	1317.6	1318.2	1322.0	1325.4	1326.6	1325.5
24.5°	1309.1	1309.3	1313.1	1317.1	1317.7	1317.4
25°	1300.2	1300.8	1304.4	1308.3	1309.3	1308.8
25.5°	1291.4	1291.5	1295.4	1299.3	1300.6	1299.8
26°	1282.2	1283.6	1286.2	1290.5	1291.7	1291.0
26.5°	1272.8	1273.0	1277.2	1281.0	1282.4	1281.9
27°	1263.4	1263.7	1267.4	1271.7	1273.3	1272.3
27.5°	1253.9	1253.5	1257.7	1262.1	1263.9	1263.0
28°	1243.9	1243.7	1247.5	1252.3	1253.9	1253.3
28.5°	1233.7	1233.7	1237.5	1242.1	1244.2	1243.6
29°	1223.5	1223.4	1227.7	1232.0	1233.9	1233.9
29.5°	1213.0	1212.8	1216.9	1221.7	1223.9	1223.6
30°	1202.7	1202.4	1206.5	1211.3	1213.2	1213.5
30.5°	1192.0	1191.7	1195.4	1200.7	1202.6	1203.0
31°	1181.3	1180.6	1184.6	1189.7	1192.4	1192.2
31.5°	1170.1	1169.5	1173.5	1178.7	1181.6	1181.4
32°	1159.0	1158.3	1161.8	1167.6	1170.4	1170.8
32.5°	1147.8	1147.0	1150.5	1156.4	1159.3	1159.4
33°	1136.3	1135.1	1139.1	1144.6	1148.1	1148.4
33.5°	1124.6	1123.3	1127.3	1133.0	1136.6	1137.4
34°	1112.7	1111.2	1115.2	1121.2	1124.7	1125.8
34.5°	1100.8	1099.1	1103.0	1109.3	1113.0	1113.7
35°	1088.6	1086.6	1090.9	1096.7	1100.9	1101.9
35.5°	1076.2	1074.2	1078.5	1084.6	1089.1	1089.6
36°	1063.9	1061.7	1065.3	1072.1	1076.4	1077.7
36.5°	1051.0	1048.9	1052.9	1059.5	1064.1	1065.3
37°	1038.2	1035.9	1040.0	1046.3	1051.3	1052.8
37.5°	1025.4	1022.7	1026.8	1033.4	1038.4	1040.1
38°	1012.3	1009.3	1012.8	1020.2	1025.3	1027.4
38.5°	998.9	995.9	999.7	1006.8	1012.5	1014.5
39°	985.6	982.7	986.4	993.6	999.4	1001.5
39.5°	972.2	968.9	972.6	980.0	985.8	988.2
40°	958.9	954.8	958.7	966.2	972.3	974.7
40.5°	945.0	940.6	945.0	952.6	958.8	961.5
41°	930.5	926.0	929.9	938.4	945.3	948.1
41.5°	915.5	910.6	915.0	923.6	930.8	933.9
42°	900.3	895.3	899.4	908.4	915.8	919.4
42.5°	884.9	879.8	883.9	892.8	900.1	904.4
43°	869.2	863.7	867.4	877.0	884.3	888.7
43.5°	852.9	847.3	851.6	860.7	868.3	872.5
44°	836.7	830.4	834.0	844.2	851.8	856.6
44.5°	820.4	814.3	817.8	827.6	835.6	840.1



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	803.9	797.3	800.7	810.7	819.0	823.7
45.5°	787.4	780.1	783.6	793.9	802.4	807.3
46°	770.2	763.1	766.2	776.9	785.7	790.7
46.5°	753.4	746.0	749.2	759.4	768.7	773.5
47°	736.8	728.2	731.5	742.2	751.8	756.8
47.5°	720.1	711.3	714.2	724.8	734.7	739.8
48°	703.0	693.6	696.9	707.7	717.8	723.3
48.5°	685.8	676.3	679.3	690.3	701.0	706.7
49°	668.7	658.7	662.1	672.6	684.0	689.7
49.5°	651.5	641.7	644.3	655.4	666.7	673.1
50°	634.6	624.2	626.6	637.9	649.8	656.0
50.5°	617.2	606.4	609.9	620.7	632.9	639.1
51°	600.1	589.3	592.6	603.3	616.2	622.7
51.5°	582.8	572.4	575.6	586.4	598.9	606.0
52°	566.3	555.3	558.2	569.7	582.5	589.5
52.5°	549.0	538.4	541.6	552.9	565.7	573.0
53°	532.3	521.4	524.8	536.1	549.1	556.9
53.5°	515.4	504.6	508.5	519.2	532.2	540.6
54°	499.3	488.3	491.2	502.7	516.2	524.2
54.5°	482.5	472.3	475.5	486.7	500.0	508.6
55°	466.4	456.4	459.6	470.7	484.0	492.8
55.5°	450.7	439.9	443.7	454.4	467.9	476.4
56°	434.3	424.3	427.9	438.8	452.5	461.8
56.5°	418.3	409.0	412.7	423.4	436.6	446.2
57°	402.8	393.4	397.1	408.0	421.6	430.8
57.5°	388.2	378.2	381.8	392.6	406.2	415.3
58°	372.4	363.6	367.5	378.1	391.4	401.3
58.5°	357.7	348.8	352.6	363.2	376.0	386.5
59°	342.9	334.5	338.6	348.4	362.0	371.8
59.5°	328.9	320.6	330.1	334.1	347.4	357.0
60°	314.1	306.7	315.0	320.4	333.4	343.1
60.5°	300.3	292.9	299.8	306.7	319.5	328.3
61°	286.6	279.0	284.6	293.0	305.7	314.8
61.5°	273.6	265.1	269.4	279.4	291.9	301.3
62°	260.0	252.6	256.5	265.7	278.1	287.9
62.5°	247.1	239.8	243.4	252.6	264.3	274.4
63°	234.3	227.4	231.3	240.3	251.5	261.1
63.5°	222.0	215.4	219.2	227.8	238.9	248.1
64°	209.9	203.7	207.5	215.8	226.5	234.6
64.5°	198.2	192.0	195.9	204.2	214.2	221.6
65°	186.8	181.0	184.8	192.7	202.6	208.6
65.5°	175.7	170.1	173.8	181.3	191.1	196.0
66°	164.9	159.4	163.2	170.5	179.6	183.2
66.5°	154.3	149.1	152.9	160.0	168.3	171.3
67°	144.3	139.4	142.8	149.7	157.1	159.8

TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	134.6	129.7	133.2	140.0	146.5	149.2
68°	125.2	120.6	124.0	130.3	136.2	138.8
68.5°	116.2	111.6	115.1	121.2	126.4	129.0
69°	107.4	103.3	106.5	112.3	117.1	119.4
69.5°	99.1	95.1	98.2	103.7	108.0	109.7
70°	91.4	87.5	90.5	95.8	99.6	100.5
70.5°	84.6	80.3	83.1	88.0	91.5	91.7
71°	77.8	73.5	76.3	80.8	83.6	83.4
71.5°	71.0	67.3	69.8	74.0	76.6	75.8
72°	64.3	61.5	63.8	67.8	69.9	68.5
72.5°	58.8	56.2	58.3	61.9	63.8	62.0
73°	53.7	51.4	53.2	56.5	58.1	56.1
73.5°	49.3	47.4	48.8	51.6	53.2	50.8
74°	45.5	43.8	45.0	47.3	48.6	47.0
74.5°	42.2	40.8	41.6	43.5	44.5	43.5
75°	39.6	38.6	39.2	40.3	40.9	40.6
75.5°	37.6	36.7	37.3	38.1	38.1	38.6
76°	35.7	34.9	35.4	36.2	36.0	36.6
76.5°	33.9	32.9	33.6	34.3	34.1	34.7
77°	32.1	31.2	31.9	32.6	32.4	32.9
77.5°	30.4	29.6	30.2	30.9	30.6	31.2
78°	28.7	28.0	28.5	29.2	28.8	29.4
78.5°	27.0	26.3	26.9	27.4	27.1	27.7
79°	25.4	24.7	25.2	25.7	25.3	26.0
79.5°	23.9	23.1	23.6	24.1	23.6	24.3
80°	22.3	21.6	22.1	22.5	22.0	22.7
80.5°	20.8	20.1	20.6	21.0	20.5	21.2
81°	19.3	18.6	19.1	19.5	18.9	19.7
81.5°	17.8	17.1	17.6	18.0	17.4	18.1
82°	16.3	15.7	16.2	16.5	15.9	16.6
82.5°	14.9	14.3	14.8	15.1	14.5	15.2
83°	13.5	12.9	13.3	13.7	13.0	13.8
83.5°	12.2	11.6	12.0	12.4	11.6	12.4
84°	10.9	10.3	10.7	11.1	10.3	11.0
84.5°	9.6	9.0	9.4	9.8	9.0	9.6
85°	8.3	7.6	8.1	8.5	7.8	8.3
85.5°	7.0	6.4	6.8	7.3	6.7	7.0
86°	5.7	5.2	5.6	6.1	5.7	6.1
86.5°	4.4	3.9	4.3	4.9	4.7	5.0
87°	3.2	3.0	3.1	3.8	3.8	4.1
87.5°	2.0	2.0	2.4	2.9	2.9	3.3
88°	0.9	1.1	1.6	2.0	2.1	2.5
88.5°	0.2	0.2	0.9	1.1	1.2	1.8
89°	0.1	0.1	0.1	0.2	0.4	1.0
89.5°	0.1	0.1	0.1	0.1	0.2	0.3



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.1	0.1	0.1	0.1	0.2	0.1
90.5°	0.1	0.1	0.1	0.1	0.2	0.1
91°	0.1	0.1	0.1	0.1	0.2	0.1
91.5°	0.1	0.1	0.1	0.1	0.2	0.1
92°	0.1	0.1	0.1	0.1	0.2	0.1
92.5°	0.1	0.1	0.1	0.1	0.2	0.1
93°	0.1	0.1	0.1	0.1	0.1	0.1
93.5°	0.1	0.1	0.1	0.1	0.1	0.1
94°	0.1	0.1	0.1	0.1	0.1	0.1
94.5°	0.1	0.1	0.1	0.1	0.1	0.1
95°	0.1	0.1	0.1	0.1	0.1	0.1
95.5°	0.1	0.1	0.1	0.1	0.1	0.1
96°	0.1	0.1	0.1	0.1	0.1	0.1
96.5°	0.1	0.1	0.1	0.1	0.1	0.2
97°	0.1	0.1	0.1	0.1	0.1	0.2
97.5°	0.1	0.2	0.1	0.1	0.1	0.2
98°	0.1	0.2	0.1	0.1	0.1	0.2
98.5°	0.1	0.2	0.2	0.1	0.2	0.2
99°	0.1	0.2	0.2	0.2	0.2	0.2
99.5°	0.1	0.2	0.2	0.2	0.2	0.2
100°	0.1	0.2	0.2	0.2	0.2	0.2
100.5°	0.1	0.2	0.2	0.2	0.2	0.2
101°	0.1	0.2	0.2	0.2	0.2	0.2
101.5°	0.1	0.2	0.2	0.2	0.2	0.2
102°	0.1	0.2	0.2	0.2	0.2	0.2
102.5°	0.1	0.2	0.2	0.2	0.2	0.2
103°	0.1	0.2	0.2	0.2	0.2	0.2
103.5°	0.1	0.2	0.2	0.2	0.2	0.2
104°	0.1	0.2	0.2	0.2	0.2	0.2
104.5°	0.1	0.2	0.2	0.2	0.2	0.2
105°	0.1	0.2	0.2	0.2	0.2	0.2
105.5°	0.1	0.2	0.2	0.2	0.2	0.2
106°	0.1	0.2	0.2	0.2	0.2	0.2
106.5°	0.1	0.2	0.2	0.2	0.2	0.2
107°	0.2	0.2	0.2	0.2	0.2	0.2
107.5°	0.2	0.2	0.2	0.2	0.2	0.2
108°	0.2	0.2	0.2	0.2	0.2	0.2
108.5°	0.2	0.2	0.2	0.2	0.2	0.3
109°	0.2	0.2	0.2	0.2	0.2	0.3
109.5°	0.2	0.2	0.2	0.2	0.2	0.3
110°	0.2	0.2	0.2	0.2	0.2	0.3
110.5°	0.2	0.2	0.2	0.2	0.3	0.3
111°	0.2	0.3	0.2	0.3	0.3	0.3
111.5°	0.2	0.3	0.3	0.3	0.3	0.3
112°	0.2	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.2	0.3	0.3	0.3	0.3	0.3
113°	0.2	0.3	0.3	0.3	0.3	0.3
113.5°	0.2	0.3	0.3	0.3	0.3	0.3
114°	0.2	0.3	0.3	0.3	0.3	0.3
114.5°	0.2	0.3	0.3	0.3	0.3	0.3
115°	0.2	0.3	0.3	0.3	0.3	0.3
115.5°	0.2	0.3	0.3	0.3	0.3	0.3
116°	0.2	0.3	0.3	0.3	0.3	0.3
116.5°	0.2	0.3	0.3	0.3	0.3	0.3
117°	0.3	0.3	0.3	0.3	0.3	0.4
117.5°	0.3	0.3	0.3	0.3	0.3	0.4
118°	0.3	0.3	0.3	0.3	0.3	0.4
118.5°	0.3	0.3	0.3	0.3	0.3	0.4
119°	0.3	0.3	0.3	0.3	0.3	0.4
119.5°	0.3	0.4	0.3	0.3	0.4	0.4
120°	0.3	0.4	0.4	0.4	0.4	0.4
120.5°	0.3	0.4	0.4	0.4	0.4	0.4
121°	0.3	0.4	0.4	0.4	0.4	0.4
121.5°	0.3	0.4	0.4	0.4	0.4	0.4
122°	0.3	0.4	0.4	0.4	0.4	0.4
122.5°	0.3	0.4	0.4	0.4	0.4	0.4
123°	0.3	0.4	0.4	0.4	0.4	0.4
123.5°	0.3	0.4	0.4	0.4	0.4	0.4
124°	0.3	0.4	0.4	0.4	0.4	0.4
124.5°	0.4	0.4	0.4	0.4	0.4	0.4
125°	0.4	0.4	0.4	0.4	0.4	0.5
125.5°	0.4	0.4	0.4	0.4	0.4	0.5
126°	0.4	0.4	0.4	0.4	0.4	0.5
126.5°	0.4	0.4	0.4	0.4	0.5	0.5
127°	0.4	0.4	0.4	0.4	0.5	0.5
127.5°	0.4	0.5	0.4	0.4	0.5	0.5
128°	0.4	0.5	0.5	0.5	0.5	0.5
128.5°	0.4	0.5	0.5	0.5	0.5	0.5
129°	0.4	0.5	0.5	0.5	0.5	0.5
129.5°	0.4	0.5	0.5	0.5	0.5	0.5
130°	0.4	0.5	0.5	0.5	0.5	0.5
130.5°	0.4	0.5	0.5	0.5	0.5	0.5
131°	0.5	0.5	0.5	0.5	0.5	0.5
131.5°	0.5	0.5	0.5	0.5	0.5	0.5
132°	0.5	0.5	0.5	0.5	0.5	0.6
132.5°	0.5	0.5	0.5	0.5	0.5	0.6
133°	0.5	0.5	0.5	0.5	0.5	0.6
133.5°	0.5	0.5	0.5	0.5	0.5	0.6
134°	0.5	0.5	0.5	0.5	0.6	0.6
134.5°	0.5	0.5	0.5	0.5	0.6	0.6



TEST NUMBER: P640217  
 CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.5	0.6	0.5	0.5	0.6	0.6
135.5°	0.5	0.6	0.6	0.6	0.6	0.6
136°	0.5	0.6	0.6	0.6	0.6	0.6
136.5°	0.5	0.6	0.6	0.6	0.6	0.6
137°	0.5	0.6	0.6	0.6	0.6	0.6
137.5°	0.5	0.6	0.6	0.6	0.6	0.6
138°	0.6	0.6	0.6	0.6	0.6	0.6
138.5°	0.6	0.6	0.6	0.6	0.6	0.6
139°	0.6	0.6	0.6	0.6	0.6	0.6
139.5°	0.6	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.6	0.6	0.6	0.6
140.5°	0.6	0.6	0.6	0.6	0.6	0.6
141°	0.6	0.6	0.6	0.6	0.6	0.6
141.5°	0.6	0.6	0.6	0.6	0.6	0.6
142°	0.6	0.6	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	0.6	0.6	0.6
143°	0.6	0.6	0.6	0.6	0.6	0.6
143.5°	0.6	0.6	0.6	0.6	0.6	0.7
144°	0.7	0.6	0.6	0.6	0.6	0.7
144.5°	0.7	0.6	0.6	0.6	0.7	0.7
145°	0.7	0.7	0.6	0.7	0.7	0.7
145.5°	0.7	0.7	0.7	0.7	0.7	0.7
146°	0.7	0.7	0.7	0.7	0.7	0.7
146.5°	0.7	0.7	0.7	0.7	0.7	0.7
147°	0.7	0.7	0.7	0.7	0.7	0.7
147.5°	0.7	0.7	0.7	0.7	0.7	0.7
148°	0.7	0.7	0.7	0.7	0.7	0.7
148.5°	0.7	0.7	0.7	0.7	0.7	0.7
149°	0.7	0.7	0.7	0.7	0.7	0.7
149.5°	0.7	0.7	0.7	0.7	0.7	0.7
150°	0.7	0.7	0.7	0.7	0.7	0.7
150.5°	0.8	0.7	0.7	0.7	0.7	0.7
151°	0.8	0.7	0.7	0.7	0.7	0.7
151.5°	0.8	0.7	0.7	0.7	0.7	0.7
152°	0.8	0.7	0.7	0.7	0.7	0.7
152.5°	0.8	0.7	0.7	0.7	0.7	0.7
153°	0.8	0.7	0.7	0.7	0.7	0.7
153.5°	0.8	0.7	0.7	0.7	0.7	0.7
154°	0.8	0.7	0.7	0.7	0.7	0.7
154.5°	0.8	0.7	0.7	0.7	0.7	0.8
155°	0.8	0.7	0.7	0.7	0.7	0.8
155.5°	0.8	0.7	0.7	0.7	0.7	0.8
156°	0.8	0.7	0.7	0.7	0.7	0.8
156.5°	0.8	0.7	0.7	0.7	0.7	0.8
157°	0.8	0.7	0.7	0.7	0.8	0.8



TEST NUMBER: P640217

CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.8	0.7	0.7	0.7	0.8	0.8
158°	0.9	0.7	0.7	0.7	0.8	0.8
158.5°	0.9	0.7	0.7	0.7	0.8	0.8
159°	0.9	0.7	0.7	0.7	0.8	0.8
159.5°	0.9	0.7	0.7	0.7	0.8	0.8
160°	0.9	0.7	0.7	0.8	0.8	0.8
160.5°	0.9	0.7	0.7	0.8	0.8	0.8
161°	0.9	0.7	0.7	0.8	0.8	0.8
161.5°	0.9	0.7	0.7	0.8	0.8	0.8
162°	0.9	0.7	0.7	0.8	0.8	0.8
162.5°	0.9	0.7	0.7	0.8	0.8	0.8
163°	0.9	0.7	0.7	0.8	0.8	0.8
163.5°	0.9	0.7	0.7	0.8	0.8	0.8
164°	0.9	0.7	0.7	0.8	0.8	0.8
164.5°	0.9	0.7	0.7	0.8	0.8	0.8
165°	0.9	0.7	0.7	0.8	0.8	0.8
165.5°	0.9	0.7	0.8	0.8	0.8	0.8
166°	0.9	0.7	0.8	0.8	0.8	0.8
166.5°	0.9	0.7	0.8	0.8	0.8	0.8
167°	0.9	0.8	0.8	0.8	0.8	0.8
167.5°	0.9	0.8	0.8	0.8	0.8	0.8
168°	0.9	0.8	0.8	0.8	0.8	0.8
168.5°	0.9	0.8	0.8	0.8	0.8	0.8
169°	0.9	0.8	0.8	0.8	0.8	0.8
169.5°	0.9	0.8	0.8	0.8	0.8	0.8
170°	0.9	0.8	0.8	0.8	0.8	0.8
170.5°	0.9	0.8	0.8	0.8	0.8	0.8
171°	0.9	0.8	0.8	0.8	0.8	0.8
171.5°	0.9	0.8	0.8	0.8	0.8	0.8
172°	0.9	0.8	0.8	0.8	0.8	0.8
172.5°	0.9	0.8	0.8	0.8	0.8	0.8
173°	0.9	0.8	0.8	0.8	0.8	0.8
173.5°	0.9	0.8	0.8	0.8	0.8	0.8
174°	0.9	0.8	0.8	0.8	0.8	0.8
174.5°	0.9	0.8	0.8	0.8	0.8	0.8
175°	0.9	0.8	0.8	0.8	0.8	0.8
175.5°	0.9	0.8	0.8	0.8	0.8	0.8
176°	0.9	0.9	0.9	0.9	0.9	0.9
176.5°	0.9	0.9	0.9	0.9	0.9	0.9
177°	0.9	0.9	0.9	0.9	0.9	0.9
177.5°	0.9	0.9	0.9	0.9	0.9	0.9
178°	0.9	0.9	0.9	0.9	0.9	0.9
178.5°	0.9	0.9	0.9	0.9	0.9	0.9
179°	0.9	0.9	0.9	0.9	0.9	0.9
179.5°	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P640217  
CATALOG NUMBER: LCR830RD9FSE010-33W-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.9	0.9	0.9	0.9	0.9	0.9

(END OF REPORT)